

CLAIMS

[1] A through wiring board provided with a through wiring in a through hole which is formed through a board, said through wiring board comprising: the through hole opened through said board; a through extension wiring with which said through hole is filled and which is formed on one surface of said through wiring board to extend to a position at a predetermined distance from said through hole; and a bump having a conductivity, formed on said through extension wiring and located in a position other than the position where said through hole is opened.

[2] The through wiring board as claimed in claim 1 wherein an insulating layer is provided between said board and at least said through wiring and said through extension wiring.

[3] The through wiring board as claimed in claim 1 further comprising: a through extension wiring with which said through hole is filled in the other surface of said through wiring board and which is formed on the other surface of said through wiring board to extend to a position at a predetermined distance from said through hole; and a bump having a conductivity, formed on said through extension wiring and located in a position other than the position where said through hole is opened.

[4] A through wiring board provided with a through wiring in a through hole which is formed through a board, said through wiring board comprising the through hole opened through said board; an insulating resin layer formed on the surface of said through wiring board except for the area where said through hole is opened in at least one surface of said through wiring board; a through extension wiring with which said through hole is filled and which is formed on said insulating resin layer on said one surface of said through wiring board to extend to a position at a predetermined distance from said through hole; and a bump having a conductivity, formed on said through extension wiring and located in a position other than the position where said through hole is opened.

[5] A method of manufacturing a through wiring board provided with a through wiring in a through hole which is formed

through a board, said method comprising: a step of forming the through hole opened through said board; a step of forming a through extension wiring on one surface of said through wiring board to fill said through hole and extend to a position at a predetermined distance from said through hole, and a step of forming a bump having a conductivity on said through extension wiring in a position other than the position where said through hole is opened.

[6] A method of manufacturing a through wiring board provided with a through wiring in a through hole which is formed through a board, said method comprising a step of forming the through hole opened through said board; a step of forming an insulating resin layer on the surface of said through wiring board except for the area where said through hole is opened in at least one surface of said through wiring board; a step of forming a through extension wiring on one surface of said insulating resin layer to fill said through hole and extend to a position at a predetermined distance from said through hole; and a step of forming a bump having a conductivity on said through extension wiring in a position other than the position where said through hole is opened.

[7] A through wiring board provided with a through wiring in a through hole which is formed through a board, said through wiring board comprising: the through hole opened through said board; a through wiring formed in said through hole; a reroute wiring which comes in contact with an exposed wiring portion of said through wiring and which is formed in at least one surface of said through wiring board to extend on said one surface of said through wiring board to a position at a predetermined distance from said exposed wiring portion; and a bump having a conductivity, formed on said reroute wiring and located in a position other than the position where said reroute wiring of said through wiring is formed.

[8] The through wiring board as claimed in claim 7 wherein an insulating layer is provided between said board and at least said through wiring and said reroute wiring.

[9] The through wiring board as claimed in claim 7 further comprising: a reroute wiring which comes in contact with an exposed wiring portion of said through wiring in the other

surface of said through wiring board and which is formed on the other surface of said through wiring board to extend to a position at a predetermined distance from said exposed wiring portion; and a bump having a conductivity, formed on said reroute wiring and located in a position other than the position where said exposed wiring portion of said through wiring is formed.

[10] A through wiring board provided with a through wiring in a through hole which is formed through a board, said through wiring board comprising: the through hole opened through said board; and a through wiring formed in said through hole; an insulating resin layer formed on the surface of said through wiring board except for the area where said exposed wiring portion is located in at least one surface of said through wiring board; a reroute wiring which comes in contact with an exposed wiring portion of said through wiring and which is formed on said insulating resin layer in at least one surface of said through wiring board to extend to a position at a predetermined distance from said exposed wiring portion; and a bump having a conductivity, formed on said reroute wiring and located in a position other than the position where said exposed wiring portion is formed.

[11] The through wiring board as claimed in claim 10 wherein there is a protrusion made of an insulating resin on said insulating resin layer formed on the surface of said through wiring board except for the area where said exposed wiring portion is located, wherein said reroute wiring is formed in order to cover said protrusion, and wherein the bump having the conductivity is formed on said reroute wiring which is formed on the upper surface of said protrusion.

[12] A method of manufacturing a through wiring board provided with a through wiring in a through hole which is formed through a board, said method comprising a step of forming a through wiring in the through hole opened through said board; a step of forming a reroute wiring in at least one surface of said through wiring board in order to come in contact with an exposed wiring portion of said through wiring and extend to a position at a predetermined distance from said exposed wiring portion; and a step of forming a bump having a conductivity on

said through extension wiring in a position other than the position where said through hole is opened.

[13] A method of manufacturing a through wiring board provided with a through wiring in a through hole which is formed
5 through a board, said method comprising a step of forming a through wiring in the through hole opened through said board; a step of forming an insulating resin layer on the surface of said through wiring board except for the area where said exposed wiring portion is located in at least one surface of
10 said through wiring board; a step of forming a reroute wiring in at least one surface of said through wiring board in order to come in contact with an exposed wiring portion of said through wiring and extend on said insulating resin layer to a position at a predetermined distance from said exposed wiring
15 portion; and a step of forming a bump having a conductivity on said through extension wiring in a position other than the position where said through hole is opened.